SUPPORT FOR THE AMENDMENT

This Amendment amends Claims 1 and 7. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claims 1 and 7 is found in the specification at least at page 10, lines 3-6. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-2, 5-7 and 9-11 will be pending in this application. Claim 1 is independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the courtesies extended to their representative during the personal interview on July 17, 2007.

As discussed at the personal interview, the present invention provides a multilayer thin film including a ferroelectric thin film having improved properties as a result of being epitaxially grown on a primer layer of a perovskite oxide thin film that is grown on a buffer layer on a silicon substrate. See, e.g., specification at page 4, lines 13-16 and 25-30; page 5, lines 18-19.

Claims 1-2, 5-7 and 9-10 are rejected under 35 U.S.C. § 112, first paragraph, as assertedly failing to comply with the written description requirement. In addition, Claims 1-2, 5-7 and 9-10 are rejected under 35 U.S.C. § 112, first paragraph, as assertedly failing to comply with the enablement requirement. The Office Action at page 3, lines 3-4, asserts there is no support in the original disclosure for an electrically conductive (100) or (001) layer directly on a ZrO_2 layer. In addition, the Office Action at page 3, lines 17-19, asserts that "Claim 1 is not enable because there is not an adequate description in the specification of

how to form a (100) or (001) electrically conductive thin film directly on an oxide thin film consisting of ZrO_2".

However, the specification discloses that the electrically conductive thin film can be directly on a single oxide layer.

> The buffer layer used herein is an oxide single layer or a mutilayer comprising a plurality of oxides. Alternatively, the buffer layer may include an **electrically conductive thin film** stacked on **the oxide** or oxides. Specification at page 8, lines 30-33.

The specification also discloses at, e.g., page 9, lines 12 and 19, that the single oxide layer can be ZrO_2.

Furthermore, the specification discloses that, in embodiments, the electrically conductive thin film can grow in pits defined by {111} facets of the buffer layer into a film having (100) or (001) orientation.

> The **conductive thin film grows epitaxially in the form of the {111} oriented film on the {111} facet plane of the buffer layer**. As the conductive thin film grows, the **pits defined by facet planes** are filled up. Eventually, **the surface of the conductive thin film becomes flat and parallel with the surface of the substrate**. Although this surface provides the cubic (100) plane, yet it sometimes provides the tetragonal (001) plane depending on distortion, etc. of crystal lattices.
>
> The electrically conductive thin film formed on the surface of the buffer layer, on which the facet planes are present, grows while the pits defined by the facet planes are filled up, as mentioned above. Eventually, the surface of the conductive thin film becomes flat and parallel with the surface of the substrate.
>
> Usually, the electrically conductive thin film is in the form of a cubic epitaxial film with the **(100)** plane oriented parallel with the surface of the film. However, this conductive thin film is sometimes in the form of an epitaxial film having typically the tetragonal **(001)** orientation, which may occur by deformation of crystals due to stresses. Specification at page10, lines 3-21 (emphasis added).

> Herein, that a thin film has the (001) orientation, for instance, is understood to mean that the (001) plane is present substantially parallel with a film plane. Specification at page 7, lines 25-27.

Thus, the specification supports and enables the independent Claim 1 limitations that "said buffer layer includes an oxide thin film consisting of ZrO_2 and comprising pits defined by {111} facet planes; and an electrically conductive thin film having (100) or (001) orientation directly on said oxide thin film".

As a result, the rejections under 35 U.S.C. 112, first paragraph, should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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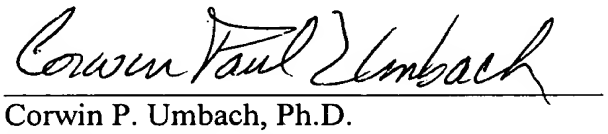
Norman F. Oblon



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